

## FURTHER DESCRIPTION OF *POLYPLAX* *ALASKENSIS* EWING (ANOPLURA)<sup>1</sup>

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*Polyplax alaskensis* was first described by H. E. Ewing (1927, Proc. Ent. Soc. Wash., 29: 118-121) from a single male taken from a mouse, *Microtus* sp., in Alaska. No subsequent collecting records of this species have been found in the literature. During the summer of 1948 a large series of individuals of both sexes was secured from mice, *Microtus o. operarius* (Nelson), collected on the Seward Peninsula by the writer. Since the original description is brief and unfigured, I am including here a further description of the species based on the numerous specimens now at hand.

Acknowledgments are made to J. C. Bequaert of the Museum of Comparative Zoology and to Floyd G. Werner of the Harvard Biological Laboratories for aid and advice. I am also very grateful to C. F. W. Muesebeck of the Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture, for corroborating the identification by comparing a specimen from my series with the type.

**FEMALE** (Fig. 1, A). Length 1.2-1.4 mm. *Head* almost as broad as long and generally similar to that of *spinulosa*; first antenna joint much longer than the others and set close to the anterior margin. *Thorax* dorsally similar to that of *spinulosa*; ventrally, the sternal plate is longer than it is broad; the anterior lateral margins are nearly parallel; the posterior lateral margins are concave and slope to a blunt point; the legs, of usual form, are of increasing size posteriorly.

*Pleural plates*: (Fig. 2, B) first pleurite elongate, faintly if at all chitinized medially and usually with three

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setæ anteriorly on the ventral lobe, and one anteriorly on the dorsal lobe; the ventral marginal seta of the first pleurite is usually more than twice the length of the dorsal seta and may approach the length of the pleurite itself; second pleurite, elongate and attenuated anteriorly, the ventral marginal seta exceeds the dorsal in length and is usually about half the length of the pleurite; third pleurite, elongate and attenuated anteriorly, with the spiracle barely inclosed by the ventral margin, and with the dorsal marginal seta the same length as that of the second pleu-

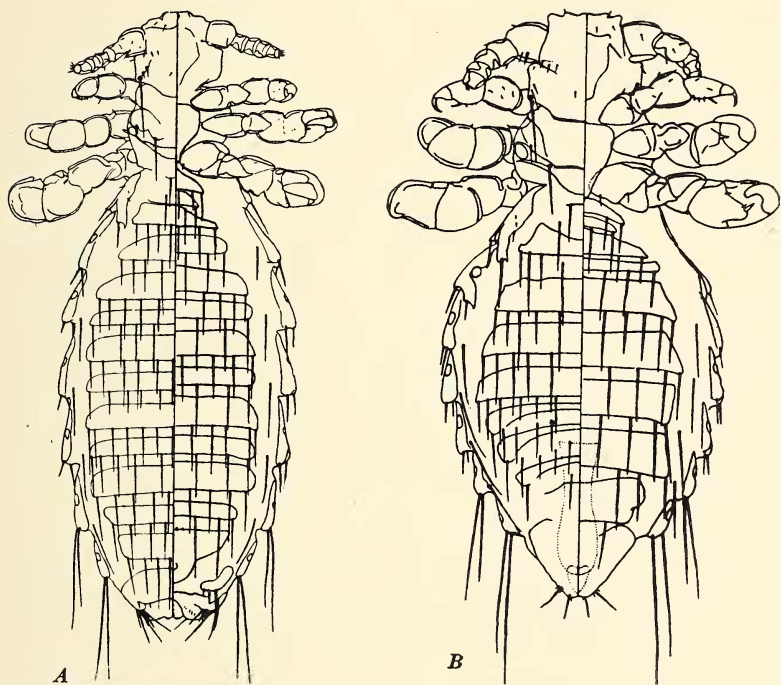


Figure 1. *Polyplax alaskensis*. A. Female. B. Male.

rite but longer than the ventral marginal seta of its own pleurite; the spiracles of the third to seventh pleurites are uniformly large and are progressively more centrally

located; pleurites four and five are less elongate and are progressively less attenuated anteriorly, the dorsal marginal setæ are longer than the ventral; pleurite six is narrow and tapers anteriorly; the seventh pleurite is narrow and very blunt anteriorly; in the sixth and seventh pleurites the chitinized area at the base of the marginal setæ is progressively more isolated from the anterior and major portion of the pleurite, and the marginal setæ are greatly elongated, the ventral ones being somewhat longer than the dorsal.

*Tergal* and *sternal* plates of the abdomen are well chitinized and cover most of the surface area, the anterior plate of each segment tending to be larger than the posterior; on their posterior margins most of the tergites have from eight to thirteen setæ and most of the sternites have from six to ten; however, there is considerable variation in these numbers. The first abdominal sternite is much wider than the second, is pointed anteriorly and concave posteriorly; the second abdominal sternite is almost a half circle; the third is more than twice the width of the second and has a pointed anterior margin. Between the ends of the posterior plate and the corresponding pleurite on the fourth to seventh segments dorsally and the third to seventh ventrally, there is a single seta of moderate length. Ventral to and parallel with the posterior margin of the seventh pleurite, a small plate, bearing three setæ on the posterior margin, has a lobe directed anteriorly from its lateral half.

MALE (Fig. 1, B). Length 0.8–1.0 mm. As described by Ewing, except for the following modifications and additions. Sternum usually longer than it is broad and may sometimes overlap the second and third coxæ.

*Tergal* and *sternal* plates of the abdomen are well developed. The first large tergite is usually strongly concave and irregular along its anterior border; the second, third, and fourth tergites progressively increase in length and are convex anteriorly; the fifth, sixth, and seventh tergites are progressively reduced in size and only in a narrow zone near their anterior margins are they strongly

chitinized. First three sternites are strongly convex anteriorly and are quite long; the third is much longer than the other two and the central area of its anterior margin is produced into a pointed lobe limited laterally by the base of a large seta; the greatest length of the third sternite distinctly exceeds that of the fourth and is about half that of the following four sternites; all five have roughly parallel and straight anterior and posterior borders.

*Genitalia* (Fig. 2, A) as described by Ewing and figured here.

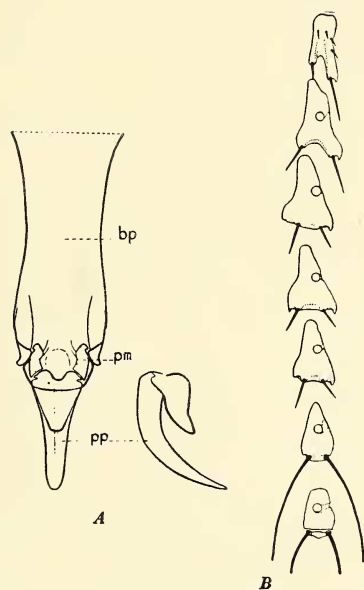


Figure 2. *Polyplax alaskensis*. A. Genitalia of males: bp, basal plate; pm, parameres; pp, pseudopenis (also shown in oblique view). B. Pleural plates of female (setae of the sixth and seventh are abbreviated).

Specimens examined: twenty-four of both sexes and different ages, collected at Cloud Lake (near Asses Ears), Seward Peninsula, Alaska, July 27, 1948. Representative specimens have been deposited in the collections of the Museum of Comparative Zoology and the National Museum.

## A NEW AFRICAN MILLIPED OBSERVED IN MIGRATION

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The mass migration of millipeds is a phenomenon that has been observed in species of various families of Julida, Spirobolida and Polydesmida. The phenomenon has never been adequately studied or explained. To the list of those observed in such migration may now be added an African member of the Spirostreptida, herein first named and described. Dr. Neal A. Weber, who collected specimens and submitted them to me for identification, supplies the following on the occurrence and behavior of this form as he noted them in the field:

"The animals were discovered Mar. 2, 1948 at the junction of the Vele and Bomokandi Rivers, Lat.  $3^{\circ}38''$  N. and Long.  $26^{\circ}8''$  E. There were thousands milling about at the river's edge and many had crawled into the river and drowned. There were at least 500 millipeds in one place hanging on a nearly vertical slope of the river bank. In an area of a hundred square meters there were at least 5,000 or that order of magnitude and they were spread over about 150 meters along the river's edge. The air temperature was  $89.5^{\circ}$  F. Eight kilometers away a few of the same animals were to be found as well as smaller numbers between that point and the river. This was the time approaching the end of the dry season, and it may well be that the population had gradually built up to this peak and migration ensued. There were no animals preying on these and no obvious cause impelling their migration in this direction and into the river where they drowned. The land was not flooded back of this area."

### **Zantekius**, new genus

A genus of the Spirostreptidæ related to *Mardonius* and *Eumekius* of Central Africa and Madagascar. Spiracles beginning on the sixth segment. Metazonites without trace of longitudinal keels, being smooth above and striate



below. Anal valves not spined. In the posterior gonopods of the male the coxa without trace of spines and set off distinctly from the telopodite; telopodite long and slender, not at all laminate and entirely without lobes or branches. The inner lamina of the anterior gonopods much produced distad, presenting on the outside at level of the gonocoel a lobe directed proximad and on mesal side near distal end a large T-shaped lobe with one arm directed distad and the other proximad.

Generotype: *Zantekius weberi*, new species.

This genus differs from *Mardonius* in lacking a femoral lobe or spine on the posterior gonopod and from *Eumekius* in having an ectal cone or lobe on the median lamella of the anterior gonopod as well as in having the conspicuous mesal lobe.

*Zantekius weberi*, new species

Metazonites black about caudal borders, anteriorly more grayish, the last segment entirely gray or grayish brown. Head with face below level of antennæ reddish. Legs and antennæ red, contrasting sharply with the dark body.

Labral excavation very shallow. Labral pits 2-2, the front of head elsewhere smooth, wholly without rugæ. Eyes with inner angles extending mesad a little beyond base of antennæ, the two separated by somewhat more than their transverse length; individual ocelli convex and distinct. Median sulcus across vertex fine, ending in a slightly depressed pit at level of inner angles of eyes. No interocular sulcus evident except faintly for a short distance each side of end of vertigial sulcus. Antennæ reaching to third segment.

Collum moderately narrowing on each side from level of eye ventrad; in the male produced forward at lower anterior corner, with three deep sulci in addition to the margining sulcus as shown in the accompanying figure (Fig. 1A); not produced in the female.

Encircling striæ of prozonites of the other segments fine, mostly about six in number. The surface of the metazonites above and laterally entirely smooth and shin-

ing. Each somite with diameter greatest at caudal border, decreasing gradually forward excepting for the moderate depression between prozonite and metazonite. Segmental sulcus fine but sharply defined throughout.



Fig. 1, A. Left side of collum of male. B. Left gonopod of male, with sternite, anterior view.

The usual sharply impressed longitudinal sulci across the metazonite below, the series ending considerably below level of repugnatorial pore. Each pore located well in front of middle of metazonite.

Dorsal line of anal tergite as seen in profile nearly straight. Anal valves distinctly exceeding the tergite; mesal borders strongly elevated. Caudal margin of anal scale weakly obtusely angular.

Ventral pads present on penult and antepenult segments of most of the legs, these pads produced into a short lappet at their distal end beneath the succeeding joint.

The distinctive features of the anterior and posterior gonopods are shown in fig. 1, B.

Type locality: Africa: Belgian Congo, near Bembi, at junction of Vele and Bomokandi Rivers. Mar. 2, 1948. Many specimens collected by Dr. Neal A. Weber.